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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): JANG, Young-Geun

Examiner:

KIM, Wesley LEO

Serial No.:

10/785,264

Art Unit:

2617

Filed:

February 23, 2004

Docket:

678-1168 (P10818)

Dated:

December 11, 2007

For:

MOBILE COMMUNICATION SYSTEM AND METHOD FOR PROVIDING PHONE

NUMBER MAINTAINING SERVICE

Mail Stop Appeal Brief-Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313

TRANSMITTAL OF APPELLANTS' BRIEF ON APPEAL

Sir:

Enclosed please find APPELLANTS' BRIEF.

Also enclosed is a credit card payment in the amount of \$510.00 to cover the appeal fee.

If the enclosed credit card payment is insufficient for any reason or becomes detached, please charge the required fee under 37 C.F.R. §1.17 to Deposit Account No. 50-4053. Also, in the event any additional extensions of time are required, please treat this paper as a petition to extend the time as required and charge Deposit Account No. 50-4053. TWO COPIES OF THIS SHEET ARE ENCLOSED.

Respectfully submitted.

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CERTIFICATE OF MAILING 37 C.F.R. §1.8(a)

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Dated: December 11, 2007

Frances Lepre



Attorney Docket No.: 678-1168 (P10818)

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APPEAL BRIEF (37 C.F.R. 41.37)

Sir:

2007.

This brief is in furtherance of the Notice of Appeal, filed in this case on October 11,

12/13/2007 RGEBREN1 00000038 10785264 01 FC:1402 510.00 09

REAL PARTY IN INTEREST

The real party in interest is Samsung Electronics Co. Ltd., the assignee of the subject application, having an office at 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do, Republic of Korea.

RELATED APPEALS AND INTERFERENCES

To the best of Appellant's knowledge and belief, there are no currently pending related appeals, interferences or judicial proceedings.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

Claims in the application are: 1-11 and 16-18.

B. STATUS OF ALL THE CLAIMS IN APPLICATION

- 1. Claims cancelled: 12-15.
- 2. Claims withdrawn from consideration but not cancelled: None
- 3. Claims pending: 1-11 and 16-18.
- 4. Claims allowed: 11 and 16-18.
- 5. Claims rejected: 1-10.
- 6. Claims objected to: None.

C. CLAIMS ON APPEAL

The claims on appeal are: 1-10. For the purposes of this appeal, Claims 1-5 stand or fall together, Claims 6-10 stand or fall together.

STATUS OF AMENDMENTS

On April 3, 2006, the Examiner issued the First Office Action on the merits (FOAM). Subsequently, an amendment was filed on June 30, 2006, in which Claim 2 was amended to obviate a 35 U.S.C. §112, second paragraph rejection. In addition, a 37 C.F.R. §131 Declaration establishing reduction to practice of the invention prior to the effective filing date of the Luis reference was filed. The Examiner issued a second and Final Office Action on October 6, 2006. A response to that Office Action was filed on January 5, 2007. Arguments distinguishing the invention from the references of record were presented. Subsequently, on January 29, 2007 the Examiner issued another non-Final Office Action.

On March 1, 2007, an interview was held with the Examiner. Claim 11 and amendments deemed to put the claim into better condition for allowance was discussed. On April 27, 2007, a response to that Office Action was filed. On June 11, 2007, the Examiner issued a Final Office Action in which Claims 11 and 16-18 were allowed. On August 27, 2007, a response was filed. Subsequently on September 19, 2007, the Examiner issued an Advisory Action, which lead to this appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

A. CLAIM 1 – INDEPENDENT

Claim 1 is directed to a mobile communication system for providing a phone number maintaining service capable of allowing a user to continue to use a previously assigned phone number regardless of a change in service provider. The system comprises a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal; a second MSC for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal transmitted from the first MSC, and transmitting the call request signal to a communication network formed by the determined service provider; and a third MSC for transmitting the call request signal received from the second MSC to the called terminal so that the called terminal can communicate with the calling terminal over a communication network formed by the changed service provider.

The above system is described in the Specification at page 3, line 28-page 5, line 3.

B. CLAIM 6 – INDEPENDENT

Claim 6 is directed to a method for providing a phone number maintaining service capable of allowing a user to continue to use a previously assigned phone number regardless of a change in service provider in a mobile communication system. The method comprising the steps of: a) receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal; b) determining a changed service provider of the called terminal based on the called terminal information included in the call request signal, and transmitting the call request signal to a communication network formed by the determinal so that the called terminal can communicate with the calling terminal over a communication network formed by the changed service provider.

The above method is described in the Specification at page 5, line 5- page 6, line 17.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. GROUND OF REJECTION 1 (Claims 1-5)

Claims 1-2 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Koster (U.S. Patent No. 6,240, 293) in view of Giuhat et al. (U.S. Pat. No. 5,881,145) and Claims 3-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Koster in view of Giuhat et al. and further in view of Mazzarella et al. (U.S. Pub. No.: 2002/0107011).

B. GROUND OF REJECTION 2 (Claims 6-10)

Claims 6-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Koster (U.S. Patent No. 6,240, 293) in view of Giuhat et al. (U.S. Pat. No. 5,881,145) and Claims 8-10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Koster in view of Giuhat et al. and further in view of Mazzarella et al. (U.S. Pub. No.: 2002/0107011).

ARGUMENT

A. GROUND OF REJECTION 1 (Claims 1-2 and 3-5)

A.1. Claim 1

Appellant initially shows error in the rejection of Claim 1 in that the Examiner misconstrues the teachings of the cited reference Koster. More specifically, the Examiner states that Koster teaches each and every limitation of Claim 1 except for a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal, which the Examiner states is taught by Giuhat in col. 6, line 1-9.

Specifically, the Examiner alleges that Koster at col. 6, lines 53-55 teaches "a second MSC for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal transmitted from the first MSC, and transmitting the call request signal to a communication network formed by the determined service provider." Appellant respectfully disagrees.

The cited passage is reproduced here for ease of comparison with an inventive feature of the invention.

In prior art systems, the donor service provider checks the NPDB to determine whether or not a subscriber has ported to another service provider. If the subscriber has ported, the service provider uses the LRN 250 to route the call to the ported service provider. In the prior art, however, no clear criteria exist for determining when a service provider should query the NPDB relative to querying the HLR or how to distinguish vacant numbers from ported out numbers. In the present invention, the service provider uses information stored in the MSC to determine when the NPDB should be accessed relative to the HLR and to process the call based on the information in the MSC and the results of the NPDB and HLR queries. Col. 6, lines 53-55.

As can be seen from the above passage, Koster does not teach, "a second MSC for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal <u>transmitted from the first MSC</u>."

Furthermore, Claim 1 recites in part a second MSC, which receives a call request

transmitted from the first MSC and a third MSC, which receives the call request transmitted from the second MSC. This arrangement is not disclosed, taught or fairly suggested by Koster and Giuhat, combined or alone. Accordingly, the Examiner fails to make a prima facie case of obviousness as to Claim 1.

In addition, the present invention discloses determining a changed service provider using called terminal information in a communication network formed by an initial service provider, while Giuhat only discloses routing a call to recipient network node using a ported directory number in intermediate network node. Giuhat merely discloses intercepting the call at a predetermined intermediate network node between an originating network node and a donor network node.

More importantly, analysis under 35 U.S.C. § 103(a) requires consideration whether the prior art would have revealed that one of ordinary skill would have had a "reasonable expectation of success" in making the modification or combination. In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed Cir. 1991). "Success" refers to whether a proposed modification or combination would have actually produced a claimed invention. See In re Naylor, 369 F.2d 765, 768, 152 USPQ 106, 108 (CCPA 1966). Applicant respectfully submits that the proposed combination of Giuhat with Koster would fail to produce the feature of determining an initial service provider from the called terminal information as claimed.

The present invention discloses determining a changed service provider using called terminal information in a communication network formed by an initial service provider, while Giuhat only discloses routing a call to recipient network node using a ported directory number in intermediate network node. Giuhat merely discloses intercepting the call at a predetermined intermediate network node between an originating network node and a donor network node. Thus, the proposed modification or combination would not have actually produced the claimed invention.

Next, the Examiner acknowledges that Koster is silent on a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal. (See Final Office Action, page 5). To remedy this deficiency, the Examiner alleges that Giuhat teaches that redirection of calls to

ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node. The Examiner then cites "Abstract;6-9" to support the rejection. (See Final Office Action, page 5). Appellant respectfully disagrees with the Examiner on several grounds.

First, Appellant is left wondering about the citation 6-9 not knowing what it refers to. Such rejection is improper for want of completeness. All claim limitations must be taught or suggested. (See MPEP §2143.03 and MPEP §707.07). The Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not set forth a *prima facie* case, as in this case, the applicant is under no obligation to submit evidence of nonobviousness. (See MPEP § 2142). Appellant respectfully submits that the Examiner failed to procedurally sustain a prima facie case of obviousness.

Second, the Examiner states that "Koster is silent on a first mobile switching center (MSC)..." yet the Examiner cites the Abstract of Giuhat for the proposition that Giuhat discloses redirection of calls to ported directory numbers are routed using the ported directory number as the called party number, from an originating network node towards the donor network node, not a first mobile switching center. Therefore, the Examiner failed to provide any support as to why the recitation is obvious over Koster in view of Giuhat. This constitutes an improperly addressed rejection. In rejecting claims for want of novelty or for obviousness, the Examiner must cite the best references at his or her command. See CFR 1.104(c)(2) and MPEP §707.07. In this case, the Appellant cannot properly respond to the Action because the rejection of the claim does not afford the Appellant the opportunity to ascertain the veracity of the Examiner's interpretation of a specific element of the claim. It is reasonable to conclude that this is no recipe for clarity and conciseness.

Furthermore, it appears the Examiner does not accord any patentable weight to the phrase "a first mobile switching center (MSC)" within the context of the claims. All words in a claim must be considered in judging the patentability of that claim against the prior art. See MPEP §2143.03. One cannot divine claim meaning in a vacuum. Philips v. AWH Corporation (Fed. Cir. July 12, 2005). Once more, the Examiner failed to procedurally sustain a prima facie case of obviousness.

Third, Claim 1 is directed to a system with a first mobile switching center (MSC), a second mobile switching center (MSC) and a third a mobile switching center (MSC) whereas Giuhat discloses a method in a hypothetical telephone network having a plurality of network nodes, each having a unique network address and using out-of-band signaling for call set-up and routing. (See Abstract, Giuhat). Giuhat falls far short of disclosing the novel features of the present invention. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). (See MPEP § 2144- § 2144.09 for examples of reasoning supporting obviousness rejections.)

In this case, the Examiner stated, "it is obvious that this concept would also apply to Koster system of processing calls and providing local number portability in a wireless communications environment, where the originating network (i.e. originating service provider) would comprise an MSC." (See Final Office Action, page 5). The Examiner's conclusory statement is unaccompanied by evidence or reasoning and is entirely inadequate to support the rejection. *In re Sichert*, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977). Accordingly, the Examiner fails to meet the requirements set forth in MPEP §706.02(j).

Finally, Appellant submits that it is impermissible to use the claims as a framework from which to choose among individual references to recreate the claimed invention. <u>W. L. Gore Associates, Inc. v. Garlock, Inc.</u> 220 U.S.P.Q. 303, 312 (1983). Moreover, the mere fact that a prior art structure could be modified to produce the claimed invention would not have made the modification obvious unless the prior art suggested the desirability of the modification. <u>In re Fritch</u>, 23 U.S.P.Q. 2d 1780, 1783, Fed. Cir. (1992); <u>In re Gordon</u> 221 U.S.P.Q. 1125, 1127, Fed. Cir. (1984). This is a classical case where "obviousness is deceptive in hindsight." The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. <u>In re Mills</u>, 916 F.2d 680 (Fed. Cir. 1990).

The prior art does not suggest such desirability. Measuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art and then-accepted wisdom in the field. <u>W. L. Gore Associates, Inc. v. Garlock, Inc.</u> 220 U.S.P.Q. 303, 312 (1983). Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the invention can be understood may prompt one "to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." Id. Appellant has thus shown that there are missing claimed features not taught or, suggested by the cited reference, and thus Claim 1 has been erroneously rejected under 35 U.S.C. §103(a)¹. The Examiner failed to established a prima facie showing of obviousness.

Accordingly, *Koster* does not teach or suggest each and every limitation of independent Claim 1. *Giuhat* fails to cure the deficiencies of *Koster*. There are missing claimed features not taught or suggested by the cited reference, and thus withdrawal of the rejection of Claim 1 under 35 USC §103(a) is respectfully requested.

In expressing disagreement with above arguments, in the Advisory Action the Examiner contends that "the combination of Giuhat and Koster further teaches transmitting the call requests to a third MSC in order to provide a method of connecting the called user with the call requestor (Col. 6;53-57)." Once again, the Appellant does not know which reference this citation is associated with. Be that as it may, since only four (4) lines are cited, each is in turn analyzed.

Koster at col. 6, lines 53-57 discloses:

In prior art systems, the donor service provider checks the Number portability database (NPDB) to determine whether or not a subscriber has ported to another service provider. If the subscriber has ported, the service provider uses the Local Routing Number (LRN) 250 to route the call to the ported service provider.

Giuhat at col. 6, lines 53-57 discloses:

The recipient Service Switching Points (SSP) 10 has a trigger (PODP or TAT) armed so as to initiate a Transaction Capabilities Application Part (TCAP) query when a call is received with the recipient SSP's own network address as the Called Party Number. A sample call set-up sequence will now be described, the messages being depicted in FIG.2 by arrows numbered according to the following sequence of steps...

As can be seen Koster does not disclose transmitting the call requests to a third MSC in

¹ In order for a rejection under 35 U.S.C. §103(a) to be appropriate, the claimed invention must be shown to be obvious in view of the prior art as a whole. A claim may be found to be obvious if it is first shown that <u>all</u> of the recitations of a claim are taught in the prior art or are suggested by the prior art. <u>In re Royka</u>, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974), <u>cited in M.P.E.P.</u> §2143.03.

order to provide a method of connecting the called user with the call requestor. Giuhat does not cure this deficiency.

Appellant has shown that there are missing claimed features not taught or suggested by the cited reference, and thus Claim 1 has been erroneously rejected under 35 U.S.C. §103(a). The Examiner has not established a prima facie showing of obviousness².

A.2. Claim 2

Appellant shows error in the rejection of Claim 2 for the reasons given above with respect to Claim 1 upon which Claim 2 depends.

A.3. Claim 3

Appellant shows error in the rejection of Claim 3 for the reasons given above with respect to Claim 1 upon which Claim 3 depends.

A.4. Claim 4

Appellant shows error in the rejection of Claim 4 for the reasons given above with respect to Claim 1 upon which Claim 4 depends.

A.5. Claim 5

Appellant initially shows error in the rejection of Claim 5 for the reasons given above with respect to Claim 1 upon which Claim 5 depends.

² In rejecting claims under 35 U.S.C. §103, the Examiner bears the initial burden of presenting a prima facie case of obviousness. <u>In re Oetiker</u>, 977 F.2d 1443,1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The burden of coming forward with evidence or argument shifts to the Applicant only if the Examiner's burden is met. Id. To establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. MPEP 2143.03. See also. <u>In re Royka</u>, 490 F.2d 580 (C.C.P.A. 1974). If the Examiner fails to establish a prima facie case, the rejection is improper and will be overturned. <u>In re Fine</u>, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

B. GROUND OF REJECTION 2 (Claims 6-7 and 8-10)

B.1. Claim 6

Appellant shows error in the rejection of Claim 6 for the reasons given above with respect to Claim 1 because Claim 6 contains similar recitations as Claim 1.

Although Claim 6 includes similar recitations as those contained in Claim 1, nevertheless the two claims are different. For example, Claim 6 is a method claim whereas Claim 1 is a system claim. However, in the Office Action the Examiner lumped Claims 1 and 6 together and only addressed the limitations of Claim 1; therefore the limitations of Claim 6 that are different from Claim 1 have not been addressed. A plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all the claims in the group. (See MPEP §707.07(d)). Again, such rejection is improper for want of completeness. Consequently, the Examiner failed to procedurally sustain a prima facie case of obviousness.

It is thus further shown that Claim 6 has been erroneously rejected under 35 U.S.C. § 103, as there are additional claimed features not taught or suggested by any of the cited references.

B.2. Claim 7

Appellant shows error in the rejection of Claim 7 for the reasons given above with respect to Claim 6 upon which Claim 7 depends.

Similarly to Claim 6, Claim 7 has been erroneously rejected under 35 U.S.C. § 103, as there are additional claimed features not taught or suggested by any of the cited references.

B.3. Claim 8

Appellant shows error in the rejection of Claim 8 for the reasons given above with respect to Claim 6 upon which Claim 8 depends.

Similarly to Claim 6, Claim 8 has been erroneously rejected under 35 U.S.C. § 103, as there are additional claimed features not taught or suggested by any of the cited references.

B.4. Claim 9

Appellant shows error in the rejection of Claim 9 for the reasons given above with respect to Claim 6 upon which Claim 9 depends.

Similarly to Claim 6, Claim 9 has been erroneously rejected under 35 U.S.C. § 103, as there are additional claimed features not taught or suggested by any of the cited references.

B.5. Claim 10

Appellant shows error in the rejection of Claim 10 for the reasons given above with respect to Claim 6 upon which Claim 10 depends.

Similarly to Claim 6, Claim 10 has been erroneously rejected under 35 U.S.C. § 103, as there are additional claimed features not taught or suggested by any of the cited references.

CONCLUSION

Appellant has shown multiple errors in the Examiner's final rejection of the claims in the present case. Therefore, based on at least the foregoing, and as the Examiner has failed to make out a prima facie case for an obviousness rejection, the rejection of Claims 1-10 must be reversed.

It is well settled that in order for a rejection under 35 U.S.C. §103(a) to be appropriate, the claimed invention must be shown to be obvious in view of the prior art as a whole. A claim may be found to be obvious if it is first shown that all of the recitations of a claim are taught in the prior art or are suggested by the prior art. *In re Royka*, 490 F.2d 981, 985, 180 U.S.P.Q. 580, 583 (C.C.P.A. 1974), cited in M.P.E.P. §2143.03.

Koster or Giuhat et al. or the combination thereof does not render independent Claims 1 and 6 obvious. Thus, independent Claims 1 and 6 are allowable.

Accordingly, dependent Claims 2-5 and 7-10 are allowable because of their dependence upon independent Claims 1 and 6.

The Examiner has failed to show that all of the recitations of Claims 1-10 are taught, disclosed or fairly suggested by Koster or Giuhat et al., or the combination thereof. Accordingly, the Examiner has failed to make out a prima facie case for an obviousness rejection.

Appellant respectfully requests that the Board reverses such final rejection.

By:

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Dated: December 11, 2007

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CLAIMS APPENDIX

The text of the claims involved in the appeal is:

- 1. (Original) A mobile communication system for providing a phone number maintaining service capable of allowing a user to continue to use a previously assigned phone number regardless of a change in service provider, the system comprising:
- a first mobile switching center (MSC) for receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal;
- a second MSC for determining a changed service provider of the called terminal based on the called terminal information included in the call request signal transmitted from the first MSC, and transmitting the call request signal to a communication network formed by the determined service provider; and
- a third MSC for transmitting the call request signal received from the second MSC to the called terminal so that the called terminal can communicate with the calling terminal over a communication network formed by the changed service provider.
- 2. (Previously Presented) The mobile communication system of claim 1, further comprising a subscriber management database (DB) on every communication network formed by each service provider for storing service change information including information relating to an initial service provider of the calling terminal and the called terminal, and information relating to a change in the service provider; wherein the first MSC detects an initial service provider of the called terminal based on the service change information, and the second MSC determines whether a service of the called terminal is changed, based on the service change information.
- 3. (Original) The mobile communication system of claim 2, wherein the service change information includes serial numbers of the calling terminal and the called terminal, a service provider change identification number, a service provider identification number, and a mobile identification number.

- 4. (Original) The mobile communication system of claim 3, wherein the first MSC determines the mobile identification number stored in the subscriber management DB, determines the service provider change identification number and the service provider identification number stored in association with the determined mobile identification number, and determines an initial service provider of the called terminal through the service provider change identification number.
- 5. (Original) The mobile communication system of claim 4, wherein the second MSC determines whether a service provider of the called terminal is changed, based on the service provider change identification number.
- 6. (Original) A method for providing a phone number maintaining service capable of allowing a user to continue to use a previously assigned phone number regardless of a change in service provider in a mobile communication system, the method comprising the steps of:
- a) receiving a call request signal with calling terminal information and called terminal information, determining an initial service provider of a called terminal from the called terminal information, and transmitting the call request signal to a communication network formed by the determined initial service provider of the called terminal;
- b) determining a changed service provider of the called terminal based on the called terminal information included in the call request signal, and transmitting the call request signal to a communication network formed by the determined service provider; and
- c) transmitting the call request signal transmitted in step b) to the called terminal so that the called terminal can communicate with the calling terminal over a communication network formed by the changed service provider.
- 7. (Original) The method of claim 6, wherein step a) comprises the step of determining an initial service provider of the called terminal based on service change information including information related to an initial service provider of the calling terminal and the called terminal, and information related to a change in the service provider; and step b) comprises the step of determining whether a service provider of the called terminal is changed, based on the service change information.

- 8. (Original) The method of claim 7, wherein the service change information includes serial numbers of the calling terminal and the called terminal, a service provider change identification number, a service provider identification number, and a mobile identification number.
- 9. (Original) The method of claim 8, wherein step a) comprises the step of determining the mobile identification number from the service change information, determining the service provider change identification number and the service provider identification number stored in association with the detected mobile identification number, and determining an initial service provider of the called terminal through the service provider change identification number and the service provider identification number.
- 10. (Original) The method of claim 9, wherein step b) comprises the step of determining whether a service provider of the called terminal is changed, based on the service provider change identification number.

EVIDENCE APPENDIX

There is no evidence to be presented.

RELATED PROCEEDINGS APPENDIX

There are no related proceedings.